Amendments to the Claims

The following listing of claims replaces all prior versions and listings of claims in the application:

1. (Currently Amended) A wireless communication device driven by an internal power supply, the device continuing a communication connection with another wireless communication device by a control signal, and performing data transmission/reception with said another wireless communication device, comprising: ~~disturbance component extracting means for extracting from a signal received by a receiving antenna a disturbance component which may affect the device's wireless communication signal~~

an RSSI signal extracting means for extracting from a received signal an RSSI signal representing a level of the received signal; ~~disturbance wave periodicity detecting means for detecting the radiation period by comparing the disturbance component extracted by said disturbance component extracting means with a frequency-divided signal obtained at a gradually varying frequency dividing ratio with respect to a clock signal of a predetermined frequency; and~~

a disturbance wave periodicity detecting means for detecting a radiation periodicity of a disturbance wave signal included in said RSSI signal, and distinguishing said radiation periodicity of said disturbance wave signal to data transmission/reception with said another wireless communications device;

a communication ~~control~~ means for performing ~~the exchange of a communication packet during a radiation-free period of time within the radiation period detected by said disturbance wave periodicity detecting means~~the data transmission/reception with said another wireless communications device; and

a communication connection continuing means for continuing the communication connection with said another wireless communications device by said control

signal established into a present frequency band which is not substantially affected by said disturbance wave signal.

2. (Currently Amended) The wireless communication device according to claim 1, wherein said disturbance wave periodicity detecting means comprises a frequency dividing circuit for gradually increasing a frequency dividing ratio with respect to an input clock signal of a predetermined frequency and a period determination circuit for determining the period of ~~a~~said disturbance wave signal by comparing ~~a signal received by a receiving antenna~~ said RSSI signal extracted by said RSSI extracting means with a frequency-divided signal from said frequency dividing circuit.

3. (Currently Amended) The wireless communication device according to claim 1, wherein said ~~communication control means comprises~~ communication connection continuing means ~~for shifting~~ shifts the transmission frequency of ~~a~~said control signal to keep the communication connection established into a preset ~~disturbance-free~~ frequency band which is not substantially affected by said disturbance wave signal and to secure ~~to continue~~ the continuation of the communication connection with said another wireless communications device when the radiation period of ~~a~~said disturbance wave signal is detected by said disturbance wave periodicity detecting means.

4. (Currently Amended) The wireless communication device according to claim 1, wherein said ~~communication control means~~ communication connection continuing means comprises transmission means for notifying ~~of~~a communication partner about the presence and period of ~~a~~said disturbance wave signal, ~~any~~the communication partner ~~which cannot~~unable to detect the presence of the disturbance wave signal when the radiation period of ~~a~~said disturbance wave signal is detected by said disturbance wave periodicity detecting means.

5. (Currently Amended) The wireless communication device according to claim 1, comprising power control means for controlling the power depending on the radiation period of the disturbance wave signal detected by said disturbance wave periodicity detecting means.

6. (Currently Amended) The wireless communication device according to claim 5, wherein said power control means is configured to determine whether ~~a communication packet can be transmitted~~said data transmission/reception with said another wireless communication device can be performed when the radiation period of ~~a~~said disturbance wave signal is detected by said disturbance wave periodicity detecting means, and to discontinue the power control when ~~the communication packet cannot be transmitted~~said data transmission/reception cannot be performed.

7. (Currently Amended) The wireless communication device according to claim 2, wherein said ~~communication control means~~communication connection continuing means comprises transmission means for notifying ~~of~~a communication partner about the presence and period of ~~a~~said disturbance wave signal~~any~~, the communication partner ~~which cannot~~unable to detect the presence of the disturbance wave signal when the radiation period of ~~a~~said disturbance wave signal is detected by said disturbance wave periodicity detecting means.

8. (Currently Amended) The wireless communication device according to claim 3, wherein said ~~communication control means~~communication connection continuing means comprises transmission means for notifying ~~of~~, about the presence and period of ~~a~~said disturbance wave signal~~any~~, to communication partner which cannot detect the presence of the disturbance wave signal when the radiation period of ~~a~~ disturbance wave signal is detected by said disturbance wave periodicity detecting means.

9. (Currently Amended) The wireless communication device according to claim 2, comprising power control means for controlling the power depending on the radiation period of the disturbance wave signal detected by said disturbance wave periodicity detecting means.

10. (Currently Amended) The wireless communication device according to claim 3, comprising power control means for controlling the power depending on the radiation period of the disturbance wave signal detected by said disturbance wave periodicity detecting means.

11. (Currently Amended) The wireless communication device according to claim 4, comprising power control means for controlling the power depending on the radiation period of the disturbance wave detected by said disturbance wave signal periodicity detecting means.

12. (Currently Amended) The wireless communication device according to claim 2,

wherein said ~~communication control means comprises~~ communication connection continuing means ~~for shifting~~shifts the transmission frequency of ~~a~~said control signal to keep the communication connection established into a preset ~~disturbance free~~ frequency band which is not substantially affected by said disturbance wave signal and to secure the continuation of ~~to continue~~ the communication connection with said another wireless communications device when the radiation period of ~~a~~said disturbance wave signal is detected by said disturbance wave periodicity detecting means.